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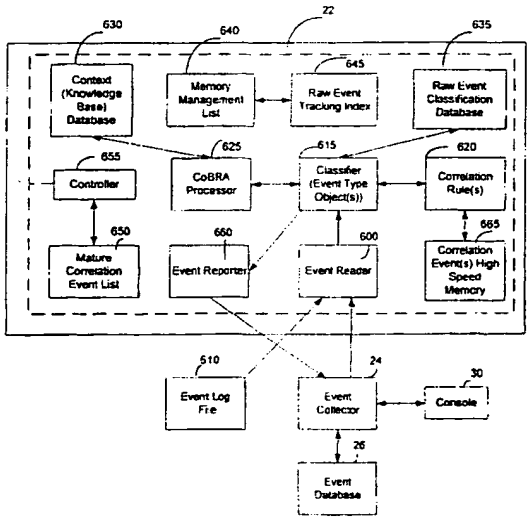
(54) Title: METHOD AND SYSTEM FOR MANAGING COMPUTER SECURITY INFORMATION




(57) Abstract: A security management system includes a fusion engine which "fuses" or assembles information from multiple data sources and analyzes this information in order to detect relationships between raw events that may indicate malicious behavior and to provide an organized presentation of information to consoles without slowing down the processing performed by the data sources. The multiple data sources can comprise sensors or detectors that monitor network traffic or individual computers or both. The sensors can comprise devices that may be used in intrusion detection systems (IDS). The data sources can also comprise firewalls, audit systems, and other like security or IDS devices that monitor data traffic in real-time. The present invention can identify relationships between one or more real-time, raw computer events as they are received in real-time. The fusion engine can also assess and rank the risk of real-time raw events as well as mature correlation events.



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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L29/06 H04L12/24

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | EP 0 985 995 A (IBM)<br>15 March 2000 (2000-03-15)<br>column 4, line 2 -column 5, line 50 | 1-4,14,<br>18,22 |
| X | JAGANNATHAN R ET AL: "SYSTEM DESIGN DOCUMENT: NEXT-GENERATION INTRUSION DETECTION EXPERT SYSTEM (NIDES)"<br>INTERNET CITATION,<br>9 March 1993 (1993-03-09), XP002136082<br>page 1 -page 8 | 1-4,14,<br>18,22 |

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| Date of the actual completion of the international search | Date of mailing of the international search report |
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| 12 April 2002 | 24/04/2002 |

| Name and mailing address of the ISA | Authorized officer |
|---|---|
| European Patent Office, P.B. 5818 Patentlaan 2<br>NL - 2280 HV Rijswijk<br>Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,<br>Fax: (+31-70) 340-3016 | Veen, G |

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Information on patent family members

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---|---|---|
| EP 0985995 A | 15-03-2000 | EP 0985995 A1 | 15-03-2000 |